STATEMENT OF BASIS (AI No. 19884)

for draft Louisiana Pollutant Discharge Elimination System permit No. **LA0081965** to discharge to waters of the State of Louisiana.

THE APPLICANT IS: Cargill, Inc.
Port Allen Grain Facility
Post Office Box 200
Port Allen, LA 70767

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

PREPARED BY: Lisa Kemp

DATE PREPARED: March 24, 2008; updated April 29, 2008

1. PERMIT STATUS

A. Reason For Permit Action:

Permit reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term

B. LPDES permit - LPDES permit effective date: August 1, 2003
LPDES permit expiration date: July 31, 2008
EPA has not retained enforcement authority.

C. Date Application Received: February 1, 2008; additional information received via email on March 7, 2008, March 20, 2008, and April 28, 2008

2. FACILITY INFORMATION

A. FACILITY TYPE/ACTIVITY - grain elevator

The facility is a grain transfer station. Grain is unloaded from barges, railcars, and trucks and ultimately loaded for export via oceangoing ships or barges.

B. FEE RATE
1. Fee Rating Facility Type: minor
2. Complexity Type: I
3. Wastewater Type: III
4. SIC code: 5153 and 4491

C. LOCATION - 520 Elevator Road, in Port Allen, West Baton Rouge Parish
Latitude 30° 25' 55", Longitude 91° 12' 21"

3. OUTFALL INFORMATION

Outfall 001

Discharge Type: treated sanitary wastewater
Treatment: extended aeration and chlorination
Location: at the point of discharge from the sewage treatment plant located at the end of the conveyer on the dock
Flow: 100 gpd
Discharge Route: to the Mississippi River

Outfall 002 (internal to Outfall 004)

Discharge Type: treated sanitary wastewater
Treatment: extended aeration and chlorination
Location: at the point of discharge from the sewage treatment plant located near the shop at the southeast corner of the facility
Flow: 90 gpd
Discharge Route: to Outfall 004; then to the Intracoastal Waterway via local drainage

Outfall 003

Discharge Type: stormwater runoff (*) and area washdown water from the northern portion of the site
Treatment: none
Location: at the point of discharge from the ditch near the northwest corner of the facility
Flow: intermittent
Discharge Route: to the Intracoastal Waterway via local drainage

(*) According to the application, the stormwater contribution includes flow from offsite drainage.

Outfall 004

Discharge Type: stormwater runoff and area washdown water from the southern portion of the site and previously monitored treated sanitary wastewater from Outfalls 002 and 005
Treatment: none
Location: at the point of discharge from the ditch at the southwest corner of the facility
Flow: intermittent
Discharge Route: to the Intracoastal Waterway via local drainage

Outfall 005 (internal to Outfall 004)

Discharge Type: treated sanitary wastewater from the office
Treatment: extended aeration and chlorination
Location: at the point of discharge from the sewage treatment plant located by the office
Flow: 530 gpd
Discharge Route: to Outfall 004; then to the Intracoastal Waterway via local drainage

Other Discharges

Air conditioner condensate is discharged on an intermittent basis from the dock facility to the Mississippi River. Its flow rate is estimated at 1,000 gallons per day when discharging. Based on the previous permit, because of the low potential for contamination, no monitoring for this wastewater will be required. However, this type of effluent is listed as an "Allowable Non-Stormwater Discharge" in the Multi-Sector General Permit and shall be included in the facility's Stormwater Pollution Prevention Plan (SWP3).

4. RECEIVING WATERS

STREAM - Mississippi River (Outfall 001)

BASIN AND SEGMENT - Mississippi River Basin Segment 070301

DESIGNATED USES - a. primary contact recreation
b. secondary contact recreation
c. propagation of fish and wildlife
d. drinking water supply

STREAM - Intracoastal Waterway via local drainage (Outfalls 002, 003, 004, and 005)

BASIN AND SEGMENT - Terrebonne Basin Segment 120109

DESIGNATED USES - a. primary contact recreation
b. secondary contact recreation
c. propagation of fish and wildlife
d. drinking water supply

5. TMDL STATUS

Outfall 001

Subsegment 070301, Mississippi River - from Monte Sano Bayou to Head of Passes, is not listed on LDEQ's Final 2006 303(d) List as impaired, and to date no TMDLs have been established. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDLs.

Outfalls 002, 003, 004, and 005

Subsegment 120109, the Intracoastal Waterway, is listed on LDEQ's Final 2006 303(d) list as impaired for sulfates (EPA Category 5). TMDLs have not yet been established for the sulfate impairment for subsegment 120109. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a future TMDL. Until completion of TMDLs for the Terrebonne Basin, those suspected causes for impairment which are not directly attributed to the grain elevator point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water

standard were also eliminated. Based on the evaluation of the effluent discharges, it was determined that the facility does not have the potential to discharge pollutants which may contribute to the sulfates impairment of the receiving waterbody.

Subsegment 120109 was previously listed as impaired for pathogen indicators (fecal coliform bacteria) and dissolved oxygen and nutrients, for which the below TMDLs have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDLs have been established for subsegment 120109:

TMDLS for the Fecal Coliform Bacteria, Chlorides, Sulfates, Total Dissolved Solids, Sediment, Total Suspended Solids, and Turbidity for Selected Subsegments in the Terrebonne Basin was finalized on April 19, 2007.

Fecal Coliform

Subsegment 120109 was listed as impaired for fecal coliform bacteria. According to the TMDL report, "For fecal coliform bacteria, LDEQ's policy is to set wastewater permit limits no higher than water quality criteria (i.e., criteria are met at end-of-pipe). As long as point source discharges of treated wastewater contain parameter levels at or below these permit limits, they should not be a cause of exceedances of the fecal coliform bacteria water quality criteria. Therefore, no change in permit limits is required." Standard fecal coliform limits have been included in the permit at Outfalls 002 and 005 that will address the potential for further impairment of this waterbody.

TMDLs for Dissolved Oxygen and Nutrients in Selected Subsegments in the Upper Terrebonne Basin, Louisiana was finalized on April 2, 2008.

Dissolved Oxygen

Only two facilities, the Alma Plantation and the Ashland Plantation, required changes in their permit limits as a result of the dissolved oxygen (DO) TMDL. To protect against further dissolved oxygen impairment, a TOC parameter has been included in the permit at Outfalls 003 and 004 and a BOD_5 parameter has been included at Outfalls 002 and 005.

Nutrients

According to the state's narrative criteria for nutrients, "The naturally occurring range of nitrogen-phosphorus ratios shall be maintained."

According to the TMDL report, water quality data were collected from non-nutrient impaired subsegments in the Terrebonne Basin. The data were compared with the observed data for the nutrient-impaired subsegments. The total nitrogen to phosphorus ratio and mean concentrations in the nutrient listed subsegments are within the ratio and concentration ranges for the non-impaired subsegments. Because of this, no nutrient reductions were necessary for subsegments 120102,

120103,120105,120106, or 120109.

The TMDL report states, "Because no reductions to nutrients were required, it is assumed that the point sources may continue to discharge at their current concentration level of nutrients and not make any deleterious effect on water quality. Any increase in nutrient effluent concentrations could require additional monitoring and modeling and a revision to this TMDL."

LDEQ's position, as supported by the ruling in the lawsuit regarding water quality criteria for nutrients (Sierra Club v. Givens, 710 So.2d 249 (La. App. 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998), is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. LAC 33:IX.2707.D.1.f.iii allows the establishment of effluent limitations based on an indicator parameter for the pollutant of concern. LDEQ's consistent approach to controlling nutrients in similar discharges where the WQMP does not otherwise require specific nutrient limitations is achieved by limiting the discharge of oxygen-demanding substances. Compliance with the BOD_5 limitation as the indicator parameter will result in the control of nutrients from the discharge sufficient to attain and maintain the applicable water quality standard. Effluent monitoring of the indicator parameter as conducted by the permittee in accordance with the effluent limitations of the permit in addition to LDEQ's ambient water quality monitoring program will allow for further evaluation by the Department to determine the effectiveness of the limitation. The reopener clause located in Other Conditions of the final permit allows the Department to modify or revoke and reissue the permit if the limitations as set on the indicator parameter are shown to no longer attain and maintain applicable water quality standards.

Compliance with the standard sanitary limits included in the permit at Outfalls 002 and 005 will address the potential for further nutrient impairment of this waterbody.

6. PROPOSED EFFLUENT LIMITS

BASIS - See Rationale, Page 10

Changes from the previous permit:

1. The monitoring frequency for Flow and TOC at Outfalls 003 and 004 has been increased from 1/quarter to 1/month.
2. The monitoring frequency for Flow and Fecal Coliform at Outfalls 002 and 005 has increased from semiannually to 1/ quarter.
3. Effluent limitations and monitoring requirements for pH at Outfalls 002 and 005 are no longer included since these outfalls are internal to Outfall 004. Monitoring of pH will take place at the final outfall, Outfall 004.

7. COMPLIANCE HISTORY/COMMENTS

A. OEC – There are no open, appealed, or pending OEC enforcement actions as of April 28, 2008. There are no records of any recent inspections at the facility.

B. DMR Review/Excursions – A review of DMRs are on file for the period March, 2005 through December, 2007 revealed the excursions listed below:

Date	Parameter	Outfall	Reported Value	Permit Limits
December, 2007	Fecal Coliform	001	2000 col/100mL	400 col/100mL
December, 2006	Fecal Coliform	001	6900 col/100mL	400 col/100mL
December, 2007	Fecal Coliform	002	3600 col/100mL	400 col/100mL
December, 2006	Fecal Coliform	002	782 col/100mL	400 col/100mL
December, 2006	BOD5	002	360 mg/L	45mg/L
June, 2006	Fecal Coliform	002	5200 col/100mL	400 col/100mL
December, 2007	TOC	003	81.5 mg/L	50 mg/L
June, 2007	TOC	003	178 mg/L	50 mg/L
December, 2006	TOC	003	255 mg/L	50 mg/L
September, 2006	TOC	003	255 mg/L	50 mg/L
June, 2006	TOC	003	92.7 mg/L	50 mg/L
December, 2005	TOC	003	163 mg/L	50 mg/L
September, 2005	TOC	003	453 mg/L	50 mg/L
December, 2007	TOC	004	62.8 mg/L	50 mg/L
June, 2007	TOC	004	127 mg/L	50 mg/L
December, 2006	TOC	004	124 mg/L	50 mg/L
September, 2006	TOC	004	124 mg/L	50 mg/L
December, 2007	BOD5	005	62 mg/L	45 mg/L
December, 2007	Fecal Coliform	005	TNTC	400 col/100mL
June, 2007	BOD5	005	111 mg/L	45 mg/L
June, 2007	Fecal Coliform	005	TNTC	400 col/100mL
December, 2006	Fecal Coliform	005	TNTC	400 col/100mL

8. EXISTING EFFLUENT LIMITS

Outfall 001 – treated sanitary wastewater from the dock

Effluent Parameter	Monthly Average	Weekly Average	Measurement Frequency
Flow - MGD	Report	Report	1/6 months
BOD_5	---	45 mg/L	1/6 months
TSS	---	45 mg/L	1/6 months
Fecal Coliform	---	400 col/100 ml	1/6 months
pH Minimum/Maximum (Standard Units)	6.0 Minimum	9.0 Maximum	1/6 months

Outfall 002 – treated sanitary wastewater from the shop area

Effluent Parameter	Monthly Average	Weekly Average	Measurement Frequency
Flow - MGD	Report	Report	1/6 months
BOD_5	---	45 mg/L	1/6 months
TSS	---	45 mg/L	1/6 months
Fecal Coliform	---	400 col/100 ml	1/6 months
pH Minimum/Maximum (Standard Units)	6.0 Minimum	9.0 Maximum	1/6 months

Outfall 003 – stormwater and washdown water from the northern portion of the site

Effluent Parameter	Monthly Average	Daily Maximum	Measurement Frequency
Flow - GPD	Report	Report	1/quarter
TOC	----	50 mg/L	1/quarter
Oil and Grease	----	15 mg/L	1/quarter
pH Minimum/Maximum (Standard Units)	6.0 Minimum	9.0 Maximum	1/quarter

Outfall 004 – stormwater and washdown water from the southern portion of the site

Effluent Parameter	Monthly Average	Daily Maximum	Measurement Frequency
Flow - GPD	Report	Report	1/quarter
TOC	----	50 mg/L	1/quarter
Oil and Grease	----	15 mg/L	1/quarter
pH Minimum/Maximum (Standard Units)	6.0 Minimum	9.0 Maximum	1/quarter

Outfall 005 – treated sanitary wastewater from the office area

Effluent Parameter	Monthly Average	Weekly Average	Measurement Frequency
Flow - MGD	Report	Report	1/6 months
BOD_5	---	45 mg/L	1/6 months
TSS	---	45 mg/L	1/6 months
Fecal Coliform	---	400 col/100 ml	1/6 months
pH Minimum/Maximum (Standard Units)	6.0 Minimum	9.0 Maximum	1/6 months

9. ENDANGERED SPECIES

The receiving waterbody, Subsegment 070301 of the Mississippi River Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the Pallid sturgeon, which is listed as an endangered species. The receiving waterbody, Subsegment 120109 of the Terrebonne Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). LDEQ has not submitted this draft permit to the FWS for review in accordance with a letter dated October 24, 2007 from Boggs (FWS) to Brown (LDEQ). As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and based on information provided by the FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse effect upon the Pallid sturgeon. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

10. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

11. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application.

12. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

Rationale for Cargill, Inc.

1. **Outfall 001** - treated sanitary wastewater from the dock (estimated flow is 100 gpd)

Pollutant	Limitation Mo. Avg:Weekly Average (mg/l)	Reference
Flow	Report : Report	previous permit, LAG530000
BOD_5	--- : 45	previous permit, LAG530000
TSS	--- : 45	previous permit, LAG530000
Fecal Coliform (colonies/100 ml)	--- : 400	previous permit, LAG530000
pH Allowable Range (Standard Units)	6.0 : 9.0 (min) (max)	previous permit, LAG530000

Treatment: extended aeration and chlorination

Monitoring Frequency: semiannually at the point of discharge from the sewer treatment plant at the dock

Limits Justification: Limits are based on the previous permit and the Class I Sanitary Discharge General Permit – LAG530000

2. **Outfall 002** - treated sanitary wastewater from the shop (estimated flow is 90 gpd)

Pollutant	Limitation Mo. Avg: Weekly Average (mg/l)	Reference
Flow	Report : Report	previous permit, LAG530000
BOD_5	--- : 45	previous permit, LAG530000
TSS	--- : 45	previous permit, LAG530000
Fecal Coliform (colonies/100 ml)	--- : 400	previous permit, LAG530000

Treatment: extended aeration and chlorination

Monitoring Frequency: 1/quarter for Flow and Fecal Coliform due to numerous excursions (see Section 7, Compliance History, Page 5); semiannually for all other parameters at the point of discharge from the sewer treatment plant located near the shop

Limits Justification: Limits are based on the previous permit and the Class I Sanitary Discharge General Permit – LAG530000. Limitations for pH have been removed since pH will be monitored

at the final outfall, Outfall 004.

3. **Outfall 003** – stormwater runoff and area washdown water from the northern portion of the site (flow is intermittent)

Pollutant	Limitation Mo. Avg:Daily Max (mg/l)	Reference
Flow	Report : Report	previous permit, (*), LAG480000
TOC	--- : 50	previous permit, (*), LAG480000
Oil & Grease	--- : 15	previous permit, (*), LAG480000
pH Allowable Range (Standard Units)	6.0 : 9.0 (min) (max)	previous permit, (*), LAG480000

Treatment: none

Monitoring Frequency: 1/month for Flow and TOC due to numerous excursions at Outfall 003 (see Section 7, Compliance History, Page 5); 1/quarter for all other parameters, at the point of discharge from the ditch near the northwest corner of the facility.

Limits Justification: Limits are based on the previous permit, current LDEQ stormwater guidance (*), and the Light Commercial General LPDES permit, LAG480000 (issued August 1, 2001) – Schedule C

* LDEQ's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)

4. **Outfall 004** – stormwater runoff and area washdown water from the southern portion of the site and previously monitored treated sanitary wastewater from Outfalls 002 and 005 (flow is intermittent)

Pollutant	Limitation Mo. Avg:Daily Max (mg/l)	Reference
Flow	Report : Report	previous permit, (*), LAG480000
TOC	--- : 50	previous permit, (*), LAG480000
Oil & Grease	--- : 15	previous permit, (*), LAG480000
pH Allowable Range (Standard Units)	6.0 : 9.0 (min) (max)	previous permit, (*), LAG480000

Treatment: none

Monitoring Frequency: 1/month for Flow and TOC due to numerous excursions at Outfall 004 (see Section 7, Compliance History, Page 5); 1/ quarter for all other parameters, at the point of discharge from the ditch at the southwest corner of the facility.

Limits Justification: Limits are based on the previous permit, current LDEQ stormwater guidance (*), and the Light Commercial General LPDES permit, LAG480000 (issued August 1, 2001) – Schedule C

* LDEQ's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)

5. **Outfall 005** - treated sanitary wastewater from the office (estimated flow is 530 gpd)

Pollutant	Limitation Mo. Avg:Weekly Average (mg/l)	Reference
Flow	Report : Report	previous permit, LAG530000
BOD_5	--- : 45	previous permit, LAG530000
TSS	--- : 45	previous permit, LAG530000
Fecal Coliform (colonies/100 ml)	--- : 400	previous permit, LAG530000

Treatment: extended aeration and chlorination

Monitoring Frequency: 1/quarter for Flow and Fecal Coliform due to numerous excursions (see Section 7, Compliance History, Page 5); semiannually for all other parameters at the point of discharge from the sewer treatment plant located by the office

Limits Justification: Limits are based on the previous permit and the Class I Sanitary Discharge General Permit – LAG530000. Limitations for pH have been removed since pH will be monitored at the final outfall, Outfall 004.

NOTE
For outfalls containing concentration limits, the usage of concentration limits is based on BPJ for similar outfalls since the flow is variable and estimated.

STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENT

A SWP3 is included in the permit because in accordance with LAC 33:IX.2511.A.1, storm water discharges shall not be required to obtain an LPDES permit "... except... discharges associated with industrial activity." In accordance with LAC 33:IX.2511.B.14.h, facilities classified as SIC code 5153, and facilities classified as SIC code 4491 that do not have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations are not considered to have storm water discharges associated with industrial activity. An SWP3 is included in the permit based on Best Professional

Judgement because there is a potential for stormwater contamination from processes including loading, unloading, and area wash down. In addition, there have been numerous excursions from the TOC limitation at Outfalls 003 and 004 (see Section 7, Compliance History, Page 5). The SWP3 shall be applied to the dock area as well as other areas of the facility.

The SWP3 shall be prepared, implemented, and maintained within six (6) months of the effective date of the final permit. The plan should identify potential sources of storm water pollution and ensure the implementation of practices to prevent and reduce pollutants in storm water discharges associated with industrial activity at the facility (see Narrative Requirements for the AI).